



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/736,930

12/16/2003

Farzad Samie

GP-303761

5331

7590

05/15/2006

KATHRYN A. MARRA
General Motors Corporation
Legal Staff, Mail Code 482-C23-B21
P.O. Box 300
Detroit, MI 48265-3000

EXAMINER

LE, DAVID D

ART UNIT

PAPER NUMBER

3681

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/736,930</p>	<p>Applicant(s)</p> <p align="center">SAMIE ET AL.</p>	
	<p>Examiner</p> <p align="center">David D. Le</p>	<p>Art Unit</p> <p align="center">3681</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|--|---|

DETAILED ACTION

1. This is the third Office action on the merits of Application No. 10736,930, filed 16 December 2003. Claims 1-20 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 12/16/03

Specification

3. The use of the trademark MACHANICAL DIOLE™ has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,827,664 to Stevenson et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1-20:

Stevenson (Figs. 11-27; column 8, line 19 – column 11, line 15) discloses a power transmission comprising:

With respect to claims 1, 10, 12, 13, 19 and 20,

- An input shaft (i.e., Fig. 13, element 18);
- An output shaft (i.e., Fig. 13, element 22);
- A plurality of planetary gear sets (i.e., Fig. 13, element 220) operatively connected between the input shaft and output shaft, each having a ring gear member, a planet carrier assembly member and a sun gear member (i.e., Fig. 13);
- A selectable and reversible braking one-way clutch (i.e., Fig. 13, being the bi-directional one-way clutch element 240') operative to brake rotation of one of said members of said planetary gear sets when the transmission is in one of reverse and forward speed;

Art Unit: 3681

- A first rotating input clutch (i.e., Fig. 13, element 245) operatively engageable with the input shaft wherein said first rotating input clutch is slipped for launching the vehicle in the first speed;
- A second rotating input clutch (i.e., Fig. 13, element 236) operatively engageable with the input shaft wherein said second rotating input clutch is slipped for launch the vehicle in reverse;
- A third clutch and a brake (i.e., Fig. 13, element 234), and wherein said first, second and third clutches, said brake and said selectable braking one-way clutch are engageable in combinations of two to provide six forward speed ratios and one reverse speed ratio between the input shaft and the output shaft (i.e., Fig. 11);
- Wherein the transmission is characterized by the absence of a torque converter;

With respect to claims 2 and 14,

- Wherein said first and second rotating input clutches are operatively engageable with the input shaft through one of said members of said planetary gear sets (i.e. Fig. 13, element 276);

With respect to claims 3 and 15,

- Wherein said input shaft is operatively connected to a member of one of said planetary gear sets, and said first and second rotating clutches are operatively connected to said one of said planetary gear sets (i.e., Fig. 13, element 276);

With respect to claims 4 and 16,

- Wherein said input shaft is operatively connected to the ring gear member (i.e., Fig. 13, element 270) of a first of said plurality of planetary gear sets, and said first and second rotating input clutches are connected to the planetary carrier assembly member of the first planetary gear set (i.e., Fig. 13, element 276);

With respect to claims 5 and 17,

- Wherein said selectable braking one-way clutch is connected between the planetary carrier assembly member of a second of said plurality of planetary gear sets, and a transmission housing (i.e., Fig. 13, element 276);

With respect to claims 6 and 18,

- Wherein said selectable braking one-way clutch is a hydraulically actuated by a piston (i.e., Fig. 14, element 824) and valve (i.e., Fig. 14);

With respect to claim 7,

- Wherein said selectable braking one-way clutch is configured to freewheel in one rotational direction and to brake in an opposite rotational direction, and is selectively reversible to brake in said one rotational direction and freewheel in said opposite rotational direction, thereby facilitating use in said reverse and forward speeds (i.e., column 8, lines 29-65);

With respect to claim 8,

- Wherein said selectable braking one-way clutch is a controllable overrunning coupling (i.e., column 8, lines 29-65);

With respect to claim 9,

- Wherein said selectable braking one-way clutch is a bi-directional differential clutch (i.e., column 8, lines 60-62);

With respect to claim 11,

- Wherein said input shaft is operatively connected to said ring gear member of a first of said plurality of planetary gear sets;
- Said output shaft is operatively connected to said ring gear member of a third of said plurality of planetary gear sets (i.e., Fig. 13);
- Said first clutch is operatively connected between said planet carrier assembly member of the first planetary gear set and said sun gear member of the third planetary gear set (i.e., Fig. 13);
- Said second clutch is operatively connected between said planet carrier assembly member of the first planetary gear set and said sun gear member of a second of said plurality of planetary gear sets (i.e., Fig. 13);

- Said third clutch is operatively connected between the ring gear member of the first planetary gear set and said planet carrier assembly member of the third planetary gear set (i.e., Fig. 13);
- Said brake being operatively connected between a transmission housing and said sun gear member of the second planetary gear set; and
- Said selectable braking one-way clutch being operatively connected between said planet carrier assembly member of the second planetary gear set and said transmission housing (i.e., Fig. 13).

Response to Arguments

6. Applicants' arguments filed on 02 March 2006 have been fully considered but they are not persuasive.

First, applicants argues that Stevenson'664 reference i.e., Fig. 13, does not meet the claimed limitation "a selectable braking one-way clutch operative to brake rotation of one of said members of said planetary gear sets when the transmission is in one of reverse and first speed" because Stevenson'664, i.e., Fig. 13, uses the combination of a low/reverse clutch 245 and a one-way clutch 240' to brake rotation of one of the members of the planetary gear sets when the transmission is in one of reverse and first speed while the present claimed invention only requires a selectable braking one-way clutch to perform the above mentioned function. Examiner respectfully disagrees for the reason that the scope of the above claimed recitation does not exclude the combination of low/reverse clutch 245 and a one-way clutch 240'. For

Art Unit: 3681

example, in Fig. 13, when the transmission is in a first speed, the low/reverse clutch 245 is engaged with the transmission housing, the one-way clutch 240' is operative to brake rotation of carrier 276 of planetary gear sets.

Second, applicants argue that Stevenson'664 reference (i.e., Fig. 13, element 245) does not meet the limitation "a first rotating input clutch operatively engageable with the input shaft, wherein said first rotating input clutch is slipped for launching the vehicle in first speed" because element 245 does not transfer torque input torque from the input shaft into transmission as required by the claimed term "input clutch". Examiner respectfully disagrees for the reason that the above claimed recitation only requires the claimed "a first rotating input clutch" to be operatively engageable with the input shaft and to be slipped for launching the vehicle in first speed. Clearly, the above claimed recitation does not specifically require the claimed "a first rotating input clutch" to transfer torque from the input shaft into transmission.

Third, applicants argue that Stevenson'664 reference (i.e., Fig. 13, element 236) does not meet the limitation "a second rotating input clutch operatively engageable with the input shaft, wherein said second rotating input clutch is slipped for launching the vehicle in reverse" because element 236 does not transfer torque input torque from the input shaft into transmission as required by the claimed term "input clutch". Examiner respectfully disagrees for the reason that the above claimed recitation only requires the claimed "a second rotating input clutch" to be operatively engageable with the input shaft and to be slipped for launching the vehicle in reverse. Clearly, the above claimed recitation does not specifically require the claimed "a second rotating input clutch" to transfer torque from the input shaft into transmission.

Accordingly, as set forth above, Stevenson'664 meets the claimed limitations.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ddl

Charles A. Mann 5/12/06
CHARLES A. MANN
SUPERVISORY PATENT EXAMINER
ART UNIT 3681